

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Original) A finger unit for a robot hand comprising:
 - a mounting flange,
 - an actuator attached to the mounting flange,
 - a rotational output shaft of the actuator that passes through the mounting flange and projects in the forward direction,
 - a drive-side bevel gear coaxially fixed to a tip portion of the rotational output shaft,
 - a pair of bearing housings that extends in a forward direction away from a front surface of the mounting flange through positions on both sides of the drive-side bevel gear,
 - bearings mounted in the bearing housings,
 - a joint shaft rotatably supported at both ends by the bearings, and aligned in a direction perpendicular to a center axis line of the rotational output shaft of the actuator,
 - a driven-side bevel gear coaxially fixed on an external peripheral surface of the joint shaft, and engaged with the drive-side bevel gear,
 - a connecting member having one end fixed to the joint shaft, and extending in the direction perpendicular to the joint shaft, and
 - a finger main body connected to a tip portion of the connecting member.

2. (Original) The finger unit for a robot according to claim 1, wherein a spring plate is mounted on an external end surface of the bearings to restrict the axial bias of the driven-side bevel gear fixed to the joint shaft.

3. (Currently Amended) The finger unit for a robot hand according to claim 1 ~~or 2~~, wherein a strain gauge is mounted on a side surface of the connecting member to detect torque transmitted through the connecting member.

4. (Currently Amended) The finger unit for a robot hand according to claim 1, ~~2, or 3~~, wherein the joint shaft is a hollow shaft comprising a hollow portion for wiring.

5. (Currently Amended) The finger unit for a robot hand according to ~~any of claims 1 to 4~~ claim 1, comprising:

a second connecting member connected to a tip portion of the finger main body,
a second actuator coaxially mounted on the second connecting member, and housed in the hollow finger main body,
a second drive-side bevel gear coaxially fixed to a tip portion of a rotational output shaft of the second actuator,
a pair of second bearing housings that are formed on the second connecting member and are extended in the forward direction through positions on both sides of the second drive-side bevel gear,

second bearings mounted in the second bearing housings,

a second joint shaft rotatably supported at both ends by the second bearings, and aligned in a direction perpendicular to a center axis line of the rotational output shaft of the second actuator,

a second driven-side bevel gear coaxially fixed on an external peripheral surface of the second joint shaft, and engaged with the second drive-side bevel gear,

a third connecting member having one end is fixed to the second joint shaft, and extending in the direction perpendicular to the second joint shaft, and

a second finger main body connected to a tip portion of the third connecting member.